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ABSTRACT

A relational database management system, Query-by-Example, was installed on an IBM 4331 system and tested in 10 schools in the Angle Park School district over a 1-year period to determine whether this system would provide the schools with the means for effectively processing the information essential for running the individual schools and providing support for curriculum activities. Enhanced by local software for input and output tailoring, the general purpose software package acted as an umbrella under which all applications were run. Each school was required to decide what information would be stored, what processing would be performed, and the nature of the reports to be produced; the computing center provided the necessary tools and all of the other data processing functions required in an administrative system. School information was stored in tables with the capability of linking or relating data from one table with data in other tables. The concept appeared to offer a very promising blend of schools' control of their own data processing and the professional computer functions being carried out by a central data processing facility. This report includes descriptions of the experiences of the individual schools and appendices containing sample formats for user tables, a query list, and sample report printouts. (LMM)

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CURRICULUM SUPPORT APPLICATIONS IN SECONDARY SCHOOLS

TRIAL REPORT

A report on the use of a general data base management system, Query-By-Example at the Angle Park Computing Centre between May 1981 and May 1982

Angle Park Computing Centre

July 1982

IR011301

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I INTRODUCTION

Schools are currently faced with the problem of managing a large amount of complex information. They are required to use that information in a manner that enables them to support the most effective educational programme possible in their situation. They are also required to provide data for the various statistical returns required by the Education Department. The variety and extent of school information processing tasks is increasing at a time when limits have been placed on the number of ancillary staff available for this purpose. School curriculum offerings are now usually broadly based and it is not effective to use classroom teacher time on what are essentially routine clerical tasks. To enable more effective forward planning to be achieved in the curriculum area, Education Department policy makers need access to curriculum related information that is held by schools. This information must be current, accurate, and in a form that is of use to groups such as the Curriculum and Personnel Directorates. The manual methods currently used by schools are not achieving the desired aims. This fact is certainly recognised by the schools and they are seeking more appropriate methods for handling their information.

The Angle Park Computing Centre has been involved in investigating computer based curriculum support activities since the early 1970's. These activities have included:

- The trial, by some 30 biology teachers, of an extensive item banking system known as Classroom Teacher Support System (CTSS). This system proved to be effective, but was not supported following the development of books of items by ACER.

- The trial of a school scheduling system known as SOCRATES at Glengowrie High School. A great deal was learnt about processing scheduling related information using this package, but it was too strongly tied to U.S. school characteristics and required extensive input of data before any result could be obtained. It was, therefore, not proceeded with.

- Investigation of a variety of school scheduling packages from Australia, New Zealand, the U.S. and the U.K. None of these packages proved suitable.

- Trial of the career guidance system DISCOVER. This system was U.S. based and the conversion and maintenance of Australian data was considered to be too difficult a task at that time.

- Support of locally developed packages to maintain group lists of students, lists of library audio-visual items etc.

The experience gained from the above trials enabled the Centre to identify some basic characteristics required of hardware/software systems that could be used to support such activities. An examination of software packages available from IBM, the hardware supplier for the APCC, isolated three packages that had desirable features. One of

these packages, Query By Example, (QBE) was chosen for installation on the Centre's IBM 4331 system for trial.

QBE is an example of what is known as a relational Data Base Management System (DBMS). This type of system allows data to be stored in tabular form, with the facility of linking or relating data from one table with that from other tables. As most school data is also stored in related tabular form, QBE seemed to be an appropriate software tool to be used with that data. Permission was sought from the Curriculum Directorate to trial QBE with ten to ten users, most of whom were schools.

This report details the experiences gained during the trial period, May 1981 to May 1982, and recommends an appropriate approach for the Education Department in the area of computer based curriculum support activities in schools.

RECOMMENDATIONS

1.1 Schools should be provided with the means for effectively processing the information that is essential for the effective running of the school and for which there is a general Education Department need.

1.2 The most effective information processing tool for schools has been found to be a general purpose Data Base Management System implemented on a computer system to which schools have an established access - the APCC system. A DBMS to be used for this purpose must have the following characteristics:

It must be economical in the use of trained personnel required to support it.

It must be flexible enough to allow for changes in the nature of the tasks it is to perform.

It must be usable across a range of information processing tasks in the school situation.

It must allow for a "user friendly" interface, preferably on a menu-driven basis to allow it to be easily used by school based personnel.

It must provide features such as adequate data security, suitable input and output mechanisms and an appropriate query language.

1.3 Although the data maintained by schools is kept in a variety of formats, there is an identifiable common set of data kept by all schools and required in part throughout the year by various groups within the Education Department. This data and the information extraction queries associated with it constitute what could be defined as a "standard user" set of data. All schools

should become DBMS users to at least the standard user level. The DBMS facilities could then also be used to process localised school data with the schools possibly being required to meet the cost of non-standard user processing of data.

1.4 A school curriculum support DBMS should be implemented as soon as possible, with schools being phased in to it commencing in 1983.

1.5 The planned revision of the APCC main hardware facility should include the hardware to support a DBMS system accessible by schools.

II BACKGROUND TO THE TRIAL

For many years the potential of the computer as a tool in the administrative processes required to support the curriculum has been recognised. A great deal of effort and considerable resources have gone into developing administrative and curriculum support systems throughout the world. These systems are particularly valuable where the curriculum offerings are limited by the available administrative support. From the early 70's, the Angle Park Computing Centre has been involved in evaluating many such systems and has attempted to locate a suitable system for South Australia. Unfortunately, none of the systems obtained matched the needs of our schools because of two very important differences between South Australian schools and the original target schools of these systems. South Australian schools have their administrative in-school systems intimately linked with the school curriculum and our schools are diverse in their organisation and administrative needs both geographically from school to school and from year to year. Consequently the use of the computer as an administrative tool in our schools has not been developed - there has been no suitable, pre-programmed system available, and the task of developing such a system has been beyond the available resources of the South Australian Education Department. It is inappropriate in this report to detail the many and varied investigations performed by the Angle Park Computing Centre staff, but it is appropriate to outline the lessons that emerged from these investigations.

All of the above comments can be justified from the experience of the Angle Park Computing Centre and schools in the investigation of the use of the computer in administration. Further information on the experience gained is available from the Angle Park Computing Centre.

To produce a total in-school administrative package by constructing it from first principles is well beyond the resources that could reasonably be expected to be allocated to such a task by the Education Department. While there may be factors encouraging them to do so, schools should be deterred from attempting to write systems for their own use. If they do, the result will be a potentially dangerous problem for the Education Department. In-school systems can be developed from very small beginnings (e.g. a class listing program) by teachers within schools, and, over a period of a few years, these applications can grow to much larger proportions. Several problems result from this action:

The waste of man-pover (usually teachers) in re-inventing the wheel (with slightly different wheels) in every school and perhaps not doing it well.

These systems are prone to disaster when their size reaches a critical level above which the design of simple BASIC programs ceases to address all of the problems involved.

As they are systems written for specific computers, there is a huge commitment to maintain such systems, and, when the equipment becomes obsolete (in say 3 to 5 years - the lifetime of current micros) there may be a very large conversion effort to move to a more appropriate

educational computing system.

A single system-wide, pre-written, manufacturer supplied software package or set of packages is the most effective means of meeting total school needs for information processing. Such a package would need to be flexible enough to process the large variety of information needed within a school, meet the needs of different schools, and be able to restructure information and access "programs" easily as school needs change.

Any suitable system must provide a variety of access methods to the information. It must also be menu driven so that school personnel can easily use the system. The system used must allow batch entry/update for the large volumes of information which are most appropriately prepared by a professional data preparation service. Interactive query and edit facility for small volumes of input/output is also required. To accompany these facilities there is a need for batch output of large volume reports.

An optimum system must have a design philosophy which maintains reasonable school autonomy for how that school's information is to be processed, and which centralises the professional data processing functions which are naturally associated with the processing of large volumes of information.

With the advent of the microcomputer at a cost which is affordable by most schools and with the social ethos promoting the acquisition of computing equipment in schools, the concept of using the computer as an administrative tool has been revived. Unfortunately, the problems and pitfalls which prevented such a system being developed earlier are still present, but are now much more subtle. Many schools are presently "dabbling" with administration using the microcomputer - the problem of developing software suitable for handling the total system needs is still horrendous, but now, at least appears to be small because it is spread widely. In fact the development of a long term supportable system is probably less likely if schools continue to develop small in-school systems independently. With the current in-school development, there is the added problem that the currently available micros are not capable of handling the total school administrative job efficiently and effectively. That is not to say that the current work is not useful or effective - it is! But it is only attacking small separate sections of the administrative job and the systems are not adequately expandable. There are several factors limiting administrative applications - the nature of the micro itself; its speed, storage capacity, reliability and the software reliability; the availability of reliable hardware and software for backup, recovery and logging to facilitate back-tracking and the availability of experienced data processing personnel in the schools who can adequately design and maintain a total computerised processing system. The shortcomings of the micro can be overcome by standard facilities provided by a professional data processing installation.

The situation in schools is now becoming more conducive to administrative uses of computers. There is an increasing number of senior staff (principals and deputy principals) who are now aware, to

various degrees, of the potential of the computer. This has come about partly through the agency of the Angle Park Computing Centre and partly through overseas and interstate exchanges. These same people are also under pressure from staff and parents to invest in computing for educational use, and are under bombardment from manufacturers promising total educational computing systems. Similarly, there is pressure from other areas to increase the efficiency of the school's administration, e.g. staff ceilings (particularly ancillary staff), increased demand for efficiency of resource usage and an increasing push for diversity in curriculum delivery methods. If each school is not to go their own way, then now is the time for a centralised "system" solution to the problem. The problem currently facing schools in "computerising" school administrative activities can be summarised as:

VOLUME & TYPE
There is a huge volume and variety of information to be stored and manipulated.

DIVERSITY
Schools are different in their organisational structure and wish to maintain their flexibility.

HARDWARE/SOFTWARE
At the school level these are not yet suitable for the tasks.

MAINTAINABILITY
Systems must be maintainable beyond a machine lifetime and through staff changes.

SECURITY
Information must be secure but easily accessible by those who have a need and the authority to use it.

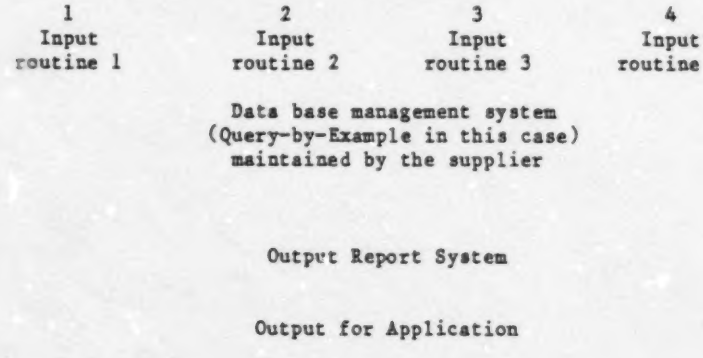
EXPERTISE
There is no "real" depth of computing expertise within the schools.

The advantages of commercially supported software packages have been well documented in the business world. The cost is well defined, the package can be tested to ensure that it does the job, software maintenance is greatly reduced, and, perhaps most important in the school situation, the package is available for almost immediate use (i.e. there is no multi-year development time during which the nature of the application and of computer hardware and software can change markedly). The Query-by-Example package selected by the Angle Park Computing Centre for trial use was installed on the Angle Park Computing Centre system in one day and was in productive use in the first trial school within one month. Most of that month was used to

determine just what information was to be processed rather than with the mechanics of Query-by-Example itself.

A general purpose Data Base Management System that is used to solve a variety of information processing problems is almost certainly going to be less efficient in its use of a computer system than software tailored specifically for a given purpose. The computer hardware and software "overheads" associated with a relational DBMS like Query-by-Example are significant, but the lower efficiency of use of the computing system must be balanced against other factors. To develop an information processing package from first principles requires a large number of steps, consultations and checks. Few packages thus developed are perfect and there is usually an ongoing process of maintaining the package throughout its life. The maintenance includes correcting "bugs" (errors in the design or coding of the programs that make up the total package). Software maintenance can grow to the point where it consumes the manpower available for information processing in an organisation. This is particularly true where information processing tasks have been developed as separate jobs, each with its history of development and modification, each incorporating a different programming style and with various (usually incomplete) levels of documentation. The result is clearly unacceptable. What tends to happen is that people who require information processing to be done are faced with increasing delays in having their needs considered because everything has to go through a Data Processing department that cannot be responsive to their needs.

A well chosen selection of "off-the-shelf" software can assist in reducing these problems. A data base management system like Query-by-Example does not eliminate the need for specific program modules to be developed, but it does minimise them and it greatly reduces the software maintenance problem. For each specific application supported using such a system, it may be necessary to write an input program. A general purpose output system should be able to handle all printed output - such is the case with the Angle Park Computing Centre use of Query-by-Example.



Ideally, the Data Base Management System should be sufficiently easy to use that the end user can use it directly after his data has been installed for use under the system. The same software tool should serve both the corporate information processing needs and those of indivigual users within the organisation. The result of this is that the users do not need to submit requests to the Data Processing section of the organisation everytime they need to accomplish an information processing task. The Data Processing section then become facilitators for other parts of the organisation rather than a choked up funnel through which all tasks must pass.

This philosophy has been the one adopted by the Angle Park Computing Centre in setting up and implementing the curriculum support trial described in this report. The system can thus be represented diagrammatically as follows:

The microcomputer has a role to play in curriculum support or administrative applications. The currently available Apple II type systems can be personal aids to people engaged in these task areas. The danger comes when they are seen as the data processing facility for what might be considered as "corporate" data. Information that is of value to the school or the Education Department must be stored in a manner that ensures compatibility of format, is reliable, and for which there is an ongoing support and development plan. In the near future, a combination of central site, large system and school based microcomputer systems will be able to achieve the desired aim. This is part of a forward plan proposed by the Angle Park Computing Centre. The solution needed is one which allows schools to 'computerise' their own administrative systems and yet have the professional data processing functions taken care of by the appropriate people.

III DESCRIPTION OF THE TRIAL

The basic philosophy behind the trial with ten user groups was to produce a working system which would overcome or minimise all of the problems mentioned earlier. The system consisted of one manufacturer supported, general purpose software package which acted as an umbrella under which all of the applications were run. The system is based on the relational data base system called Query-By-Example, enhanced by some local software for input and output tailoring. The system requires that the schools decide what information they wish to store, what processing is to be performed and the nature of the reports to be produced. The "schools" are also responsible for the accuracy of the information whilst the Angle Park Computing Centre provides all of the tools necessary for the schools to do this, and also provides all of the other data processing functions required in a true administrative system.

In Query-by-Example, the user (school) information is stored in tables, for example, a STUDENT table could contain the following information about each student in the school:

STUDENT	Register	Name	Date of Birth	Sex	Year Group	House

or, a resource centre could store the following information about each available item in a RESOURCE table:

RESOURCE	Item No	Dewey No	Title	Series	Faculty Code	Type

Each user may define as many tables as is needed to perform the functions required and each table may contain up to 100 columns, each column being up to 3200 characters wide. This information is stored on a magnetic disk at the Angle Park Computing Centre. To provide a back-up facility, several generations (past copies) are stored on magnetic tape. To obtain reports from this information, the user writes queries which define what information is to be printed and how it is to be printed - the output format. These queries have been written mainly by the data base administrator at the Angle Park Computing Centre, and once written, are stored as part of that school's data base, to be called up by the school whenever required. Each query defines how the information is to be formatted when printed, such as page size, lines per inch, headings, double or triple spacing, underlining, multiple copies etc. The queries can be quite simple, producing such things as school lists, year lists, house lists, class lists, etc. or more complex, producing such reports as tally and conflict matrix, school statistics, age-grade census, individual timetables etc. These queries can also be constructed to produce sheets which act as information input forms for new information to be added to the system. Other queries can be devised to help validate the information stored in the data base - e.g.to list all students who have selected subjects not offered or to list all

clashes in the timetable table, etc. The benefit of having the queries developed by the data base adminstrator at the Angle Park Computing Centre, is that the query needs to be developed only once and then only slightly modified, if necessary, to meet each individual school's needs.

One of the major problems associated with running such a system is that of getting the large volume of information (many millions of characters) into the computer and keeping that information current. The system being trialled supports many methods for doing this and the best method for each school depends on several factors. For large volumes of information it is most efficient and economical to take the information from its source (usually school lists) and have it keyed onto magnetic tape by a professional data preparation centre. Currently these costs run at between $1.30 and $1.50 per 1,000 keystrokes and have proved to be a most suitable method for large volume data entry. For example, using such a method, it is possible to enter all of the subject choices for each student in the school and, within a day or two, (depending on couriers) have back in the school subject lists, student course lists, tally and conflicts, statistics, etc. For updates to information already in the computer, the best method is to have the computer print out the old information in an appropriate format (say, double spaced in class lists) for the school to write the new information on the output. With reasonable writing this can then be sent to a data preparation centre to have the changed information dealt with as before. For other minor changes or for simple requests for output, there are several methods being investigated - one involves contact with the Angle Park Computing Centre with a request for the job to be done; another involves a school representative using a terminal at the Angle Park Computing Centre; a third is to use an in-school terminal with a dial-up line. Currently we are able to use the APPLE II as a terminal. In the future, there will be other suitable terminals or microcomputers. Again, the output generated by a terminal session (either at the Angle Park Computing Centre or in-school) can be displayed on the terminal to be copied and used or sent to a printer for return to the school via the well established courier system.

The concept being trialled offers a very promising blend of school control of their own data processing and the professional computer functions being carried out by a central data processing facility. So far the trial is proving very successful with the benefits becoming more apparent as the schools involved become more aware of the capabilities of the system. Two major areas of benefit appear to be emerging - first, the speed and efficiency of the overall system is producing marked savings in time for the people within the school without transferring that work volume elsewhere, and second, the flexibility of the system is allowing schools to easily embark upon exercises which, although valuable to the school, could not be contemplated without adequate computer support. The benefits of the system in schools is detailed elsewhere in this report.

The system has not been installed and operated in such a fashion that no problems have arisen. As the problems have arisen the flexibility of the system has been able to provide a solution as both the Angle

Park Computing Centre personnel and the school's personnel have come to grips with the problem. The price paid for the success of the system has been that the flexibility is paid for in processing time, but this appears acceptable, especially when one considers the current trends in costs of machine cycles and storage space. The "schools" which are involved in the trial are shown in the diagram below which illustrates the total computer system.

SYSTEM	USER
QBE PROGRAMS	MORPHETT VALE HIGH SCHOOL
OUTPUT ROUTINES	CAMPBELLTOWN HIGH SCHOOL
DATA MAINTENANCE	PARKS COMMUNITY EDUCATION CENTRE
	PARA HILLS HIGH SCHOOL
	NARACOORTE HIGH SCHOOL
	NORWOOD HIGH SCHOOL
	CHRISTIES BEACH HIGH SCHOOL
	GILLES PLAINS HIGH SCHOOL
	MURRAY BRIDGE HIGH SCHOOL
	PARKS COMMUNITY CENTRE

The "schools" were chosen with a variety of factors in mind - a desire to be involved, willingness to commit staff to the exercise, a range of previous knowledge of computers in adminstration, different sizes of school, geographic diversity, different school organisational structures and different perceived needs for computer support. In addition, to illustrate the concept with entirely different tasks, the Parks Community Centre stock recording system was included as was the resource centre inventory for Gilles Plains and Murray Bridge High Schools.

IV TRIAL SCHOOLS RESPONSES

In the last ten to fifteen years many secondary schools have significantly altered their educational philosophies and procedures in line with Education Department policy. Students do not necessarily remain in the one class group for all lessons. In some circumstances the learning group does not remain the same from one subject to another. There is a wider curriculum with greater choice within the curriculum. Parents and students are encouraged to make choices to suit their personal needs. Courses are not necessarily of one year duration. Six week, ten week, term and half year courses are now being offered in South Australian schools.

Administrative procedures necessary to cope with the greater complexities which these changes have caused have sometimes been so complex and tedious that the programmes have not been sucessfully maintained or even implemented. What would otherwise have been valuable educational programmes have been discarded in favour of more manageable arrangements because of limitations set by the existing resources.

Some of the schools involved in the trials, Campbelltown High School, Morphett Vale High School, Naracoorte High School, and The Parks Community Education Centre had particular administrative problems which the data base management system seemed to be capable of solving. Each school had its own particular needs and expectations from the trial and each school accepted the commitment to the pilot scheme in the second term of 1981.

THE SITUATION IN THE PILOT SCHOOLS, MID 1981.

Campbelltown High School

The school had made a commitment to offer, for 1982, a scheme whereby each student could choose from all the courses offered those that best fitted his/her needs, abilities and aspirations subject to thorough counselling from school staff and in keeping with the "Our Schools and Their Purposes". This meant the students could choose courses appropriate to different year levels, different lengths (half year courses, term courses, or full year courses), and/or different levels within a year.

The school needed a method of gathering this data after choices were made, determining numbers selecting each of the 453 courses offered and then analysing it so as to build a timetable to determine staffing requirements for 1982. The decision to move in this direction evolved after several years of evaluation of the school's programme.

In 1980 the school sought assistance from I.B.M., who offered a free trial of the EPIC SOCRATES programme so that the school could make a decision about leasing it. The APCC conducted this trial. The decision made in late 1980 was that the program was too complex to serve the school's needs. Nevertheless Seaton High School, who were

changing their school structure in much the same way, did choose to use the SOCRATES program at their own cost for 1981. One member of staff had observed at first hand the U.S. school scheduling approach during a year's exchange teaching in Ontario, Canada. The same teacher followed this up by visiting the San Mateo High Schools district in California to investigate how this cluster of schools use the SOCRATES program in their scheduling of classes. Thus, after five years investigation, the school was ready for a computer based system to assist it to move forward.

Morphett Vale High School

The school was established in 1973 when resources, including teaching staff, ancillary staff, and capital items were more readily available. The programmes initially established aimed at providing maximum diversity for the full range of student needs, for a diversity of teaching methods, to allow minimum restrictions due to prerequisites and previous decisions, and for staff, students and parents to be involved in the counselling and selection of courses. They were bold and imaginative, and were backed up by participative decision making programmes, and an extensive evaluation programme both of which have been thoroughly documented in South Australian Education Department publications. Subjects ran for a length of one term, and counselling, course selection and timetabling were revised each term.

The last five or six years have seen a complete revision of the school's curriculum with courses all being extended to year length. The participation of students and parents in choosing the most relevant course continues to demand a large amount of clerical work to process and document choices (four or five weeks work for a Deputy Principal and School Assistant prior to timetabling processes commencing).

Two of the Deputy Principals had previously worked with computer programs for school administrational services (one in the Glengowrie High School trial of EPIC - SOCRATES in 1974, the other with a program in Toronto, Canada) and along with the Principal and other staff could see immense benefits in being able to process much of the information regarding course choices by computer prior to the educational decision making and timetabling processes. It was felt that such a system might prevent further reduction in student choice in the face of decreasing value of funds available to schools and would allow the standard of education at present offered to be maintained or improved.

The Parks Community Education Centre

The Parks, like other schools, wishes to provide its students with a wide variety of options both in course content and duration. The major problem for the school in doing this is to keep an accurate, up to date record of student choices. The physical nature of the Centre also means one central set of records is not practical, and multiple copies of many of the records is required. Because of the school's

proximity to the Angle Park Computing Centre, and ease of staff liaison, a decision to participate in the trial was a simple one. Also at this time, The Parks Community Education Centre was reviewing its total structure and a major concern was how the overall school could maintains its records, if a decision was made to operate in smaller sub-groups. Computer assistance was seen as a viable option.

Naracoorte

Some staff at Naracoorte High School had been involved with computer assistance in administration and believed a computer would provide for better efficiency in the running of a school. As a country school, remote from the Angle Park Computing Centre, Naracoorte also allowed a good test for difficulties that could arise from use of a metropolitan based facility.

Norwood High School

Norwood High School joined the trial in May 1982 after several years of experience using their own school's large mini computer. A major reason for their participation was to compare the flexibility and greater sophisication of the Angle Park Computing Centre package with their own "home grown" software.

Reasons For Using A Computer To Assist With School Administration

Student information can be accurately stored and recalled in a variety of ways to enable administrative decisions (e.g. creation of timetables) to be based on accurate and thorough information.

Once data has been correctly stored, it remains correct for all subsequent print-outs: e.g. words spelt correctly - names, addresses, subjects, etc.

Data can be recalled in any order required: e.g. alphabetical, by sex, by home group, by subject, etc.

multiple copies of lists can be called for, eliminating the need for typists to handle data, reducing repetitive work.

Data can be counted and classified in a variety of ways: e.g. the number of students who have chosen each particular course, and even each (and every) pair of courses (a conflict matrix).

Data is more readable than when hand written.

More details can be handled and processed than is possible with available manual resources.

A greater variety of data presentation can be attained to enable distribution of relevant information to appropriate people in a usable form.

An educational goal of schools is to optimize student course choice and still maximise utilisation of available resources (teachers, rooms, time, equipment, finances). A computerised system assists in this process.

A computerised system reduces the clerical role of each teacher so as to free more time for teaching and related activities.

Similarily, the system saves school assistants' time spent on repetitive clerical tasks enabling them to be available for other worthwhile educational tasks.

The Pilot Program

Although each school developed according to their own needs, there are features that are common to all schools. The following is a timetable of the activities which schools have used in the trial:

Term 2: 1981

Preparation of data from 1981 records for computer storage.

Production of appropriate listings using the student information to gain necessary experience with the system and to test acceptability of the lists in the school situation. The following were some of the earlier lists produced:

Alphabetical list of students in school
Alphabetical list of student in year levels
Alphabetical list of students in home groups
House lists
Year lists
School statistics
Age - Grade statistics
Biographical data on each student
Alphabetical list of students in year levels
Biographical data, in care group order

Term 3: 1981

Course selection and timetabling procedures for 1982 were commenced.

Preparation and listing of all 1982 subjects to be offered in the following lists:

Subject rolls

Subject tallies

Individual student course details

Conflict matrices and student lists of particular two subject pairings

Distribution of the above lists to the appropriate people for checking, correction and decision making. This distribution included students, subject seniors, and Deputy Principals.

Preliminary timetabling decisions were made including:

Which courses were to be run in 1982
Number of classes for each course
Which courses are simultaneous to others
Staff requirements and information of student groups for 1982
Recounselling of students on basis of preliminary timetable information in December.
Final timetable and the final scheduling of students

NOTE: The building of the timetable was still done manually, but with the more precise information provided by the computer.

Timetable was placed into the computer.

Student class schedules were filed on the computer.

Production of listings to start the 1982 school year, including:

Student personal timetables
Subject rolls
Care group rolls
School roll
Timetables for staff
Timetables for rooms

Term 1 1982

Checking of lists of computer printouts by having students and teachers respond to the initial lists.

Updating and correcting of the information stored in the computer.

Production of a range of administrative records.

Maintenance, during the term, of the computer records (additions, deletions and changes).

This sequence has been developed by a trial and error approach within the schools involved.

The staff involved in the schools and the Angle Park Computing Centre were developing techniques at the time they were required, with little prior in-school experience and expertise with computerised systems of

this complexity.

Much has been learnt by all involved but because it is a pilot project with no guarantee of continuance, the schools were initially reluctant to rely solely on computer support.

School Costs and Savings

The costs to the schools have been twofold:

1. Data preparation at a commercial data preparation centre. Costs range from $200.00 to $300.00 per school.

2. Time costs to staff involved in the developmental processes. These should be greatly reduced now that the procedures are better established.

The savings to the school have been in reduced or no use of Binary cards, N.C.R. triplicate paper and photo-copying (in particular at Morphett Vale High School) reduced considerably. Time spent in clerical processes, typing, counting, collecting, sorting, printing, listing, have been reduced considerably. This has affected Deputy Principals, Office Staff, School Assistants and Teachers.

Outcomes

Each school involved believes that all of the hopes for gains mentioned above have been achieved. Additional benefits that have arisen include:

Faster processing of information, with more time available for decisions to be made.

Wider participation in decision making because of the availability of information in a variety of formats.

A more efficient start to the school year because both students and staff had complete information about rooms, teachers, classes and courses.

Three schools commenced the complete timetable as early as the first or second day.

A realisation by school staff of the need to be more accurate in the information they provide about students for school record purposes. Information that staff supply is being processed and returned to them. They realise that it is not ignored because of the difficulty of the clerical tasks involved.

The overall programme has led to improvements in staff morale.

Tasks previously neglected can now be handled successfully.

Regular updates are now possible, resulting in more accurate information at any time.

The extra confidence in the information available has prompted a review of office procedures. The range of printouts possible from the computer encourages changes where economies are leading to more effective school operation with regard to the storage and retrieval of information.

There are savings in staff time in obtaining information. For example, in locating a student, or in using a room.

Both students and staff have become much more aware of computer processes because of their involvement in a process whch is extremely relevant to them. This can be an effective component in the classroom teaching of computer awareness and the social implications of computers

Schools are finding that, as more expertise is gained, more uses can be made of the system. For example, the following reports were compiled by the schools using QBE rather than manual methods. Student leavers return, age grade census and curriculum statistics.

Conclusion

All schools in the trial are convinced that the computer support so far provided, has been highly beneficial. All the initial goals which were hoped for have been achieved and many extra benefits have been established. The time savings are real and the educational gains are very significant to both students and teachers. We believe that if other schools were also involved, the increased accuracy and range of information would benefit the total school system. The schools involved could be considered to be privileged to have been involved in the pilot project and optimistically look forward to the consolidation of the programme in 1983 and beyond. We also believe all schools could profit by similar computer support without losing their flexibility and individuality through a "Standard User" concept.

V "STANDARD" USER

One of the major outcomes of the trial, from the Angle Park Computing Centre's viewpoint, was the philosophy needed to support schools in this venture. Initially, the approach taken was to allow schools to define their own data base (in information terms) and support them in the evolution of their information processing structure. This philosophy worked, but to varying degrees and with varying efficiency dependent mainly upon the expertise of the in-school staff. It was also interesting to note that each of these separate evolutions moved towards a relatively common structure with few, but important, differences. This led to the suggestion of reversing the philosophy; of the development of a "standard" data base format which would meet most schools' needs, establish and educate schools with such a structure and then allow the individual evolution to personalised systems. Such a system has met with general agreement and much time has been spent in defining and describing a system based on such a standard. Although at this stage, the implementation is not in its final form, a close approximation to this is shown in the tables of appendix A and the query list of appendix B. Appendix C represents a flow chart of the organisational process, and Appendix D illustrates some report formats.

VI IMPLEMENTATION IMPLICATIONS

If the system is to be maintained in the trial schools and expanded to other secondary schools, there is a need to plan the resources needed and a timetable of implementation. The following actions need to occur:

- maintenance of the trial schools for the interim period before a full system is implemented,
- selection of a suitable software system which meets the specifications outlined in this report,
- selection of the appropriate central hardware to support the schools using the software system through appropriate in-school hardware,
- a plan of phasing the introduction of schools onto the system.

The first action is relatively simple and is already being implemented by continuing to support the ten "schools" using the trial hardware and software. This action is also allowing the APCC to further develop the concept of the "standard" user and to refine the operational aspects, both with the schools and at the APCC, of the total system. All of this is being developed, where possible, in general terms so that the experience and development is transportable to whatever final system eventuates.

As QBE was only a trial software package, it is not possible to expand this, without careful evaluation, to use with all schools. There are other packages offered by both IBM and other manufacturers which could meet the requirements. Although the APCC staff has investigated, at a superficial level, the abilities of some such systems, more time and effort must be spent in this evaluation process. Such evaluation must also be done bearing in mind the other possible data base applications which the APCC will be called upon to provide - services such as microcomputer software clearing house, curriculum information systems, etc. The DBMS system must be extremely flexible and offer a growth path beyond the current requirements.

Having found a suitable software package, this will probably determine the hardware manufacturer (providing such manufacturers can also service the other needs of the APCC). The system configuration must also allow a great deal of flexibility in communications. As has been described earlier, a wide variety of access methods needs to be available to the users in schools using either terminals or local microcomputers. The system needs to offer sufficient storage space for the schools' data bases and the central ones, as well as sufficient processing power to meet the schools' requirements (operating possibly on extra shifts during the peak load periods).

The APCC, even given the appropriate hardware and software, cannot introduce all schools onto the system at the one time. The volume of organisational work and the in-school education programmes would be too horrendous to consider. Staff would need to be devoted to this

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task and a careful timetable of implementation organised. Although the current APCC operational staff will fulfil part of the needed staff resources as the nature of work at the APCC changes, some extra staff would be required for the school liaison and the additional operational and administrative support.

In this report it is inappropriate to consider details of staff and equipment resources as these are intimately linked to the other functions being performed by the APCC. The APCC is preparing a separate proposal on resource requirements as a consequence of the computing policy that has recently been developed.

APPENDIX A: **STANDARD USER TABLES**

TEACHER	CODE	SURNAME	INITIALS	TITLE	GROUP	ROOM	POSITION
.....	AVAILABLE	FACULTY	DEGREES	APPOINTED	SERVICE	GIVEN NAMES	
.....	SEX	MARITAL	ID	ADDRESS	HOLIDAY	PHONE	
.....	COMMENT 1	COMMENT 2	COMMENT 3	COMMENT 4	COMMENT 5		
.....	COMMENT 6	COMMENT 7	COMMENT 8	COMMENT 9	COMMENT 10		

STUDENT	REGISTER	SEX	NAME	YEAR	GROUP	HOUSE	TEACHER	D OF B
.....	ADDRESS	MOTHER	FATHER	HOME PHONE	CONTACT PHONE	ENROLLED		
.....	PREVIOUS SCHL	LEAVE DATE	LEAVE DETAILS	GOV ASSIST	TIME			
.....	COMMENT 1	COMMENT 2	COMMENT 3	COMMENT 4	COMMENT 5			
.....	COMMENT 6	COMMENT 7	COMMENT 8	COMMENT 9	COMMENT 10			

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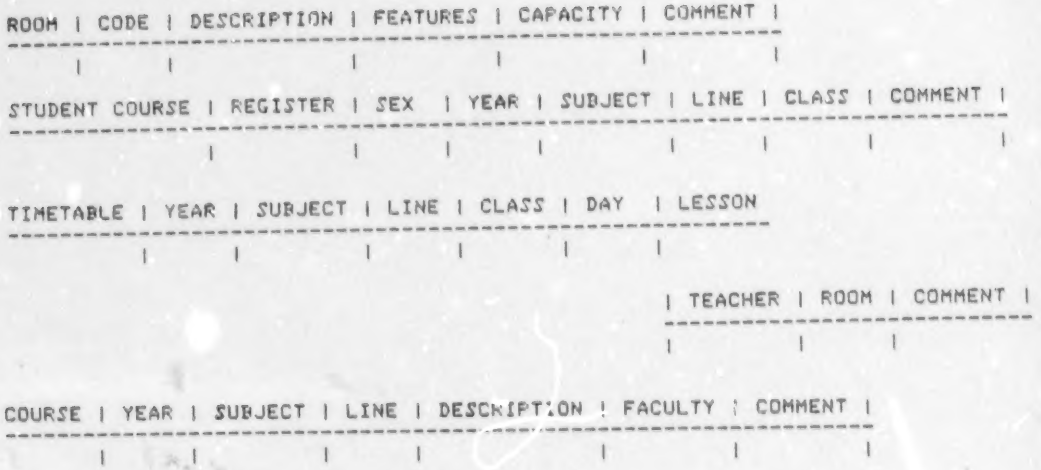
ROOM | CODE | DESCRIPTION | FEATURES | CAPACITY | COMMENT |
STUDENT COURSE | REGISTER | SEX | YEAR | SUBJECT | LINE | CLASS | COMMENT |
TIMETABLE | YEAR | SUBJECT | LINE | CLASS | DAY | LESSON
| TEACHER | ROOM | COMMENT |
COURSE | YEAR | SUBJECT | LINE | DESCRIPTION | FACULTY | COMMENT |

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APPENDIX B:

-Q U E R Y L I S T-

AGE GRADE CENSUS
COURSE BY FACULTY BY YEAR BY LINE
COURSE BY YEAR BY LINE BY SUBJECT
COURSE UPDATE
ROOM BY CODES
ROOM BY COMMENT
ROOM BY DESCRIPTION
ROOM TIMETABLES
ROOM UPDATE
STUDENT BY GROUP
STUDENT BY GROUP BY HOUSE
STUDENT BY GROUP BY HOUSE BY SEX
STUDENT BY GROUP BY SEX
STUDENT BY GROUP DETAILS
STUDENT BY GROUP PHONE
STUDENT BY GROUP POSTAL
STUDENT BY HOUSE
STUDENT BY HOUSE BY SEX
STUDENT BY HOUSE BY YEAR
STUDENT BY HOUSE BY YEAR BY SEX
STUDENT BY NAME
STUDENT BY REGISTER
STUDENT BY SEX
STUDENT BY YEAR
STUDENT BY YEAR BY SEX
STUDENT BY YEAR PHONE
STUDENT BY YEAR POSTAL
STUDENT COMMENTS 1 TO 5
STUDENT COMMENTS 6 TO 10
STUDENT COURSE BY CLASS
STUDENT COURSE BY CLASS BY SEX
STUDENT COURSE BY STUDENT BY GROUP
STUDENT COURSE CONFLICT BY MATRIX
STUDENT COURSE EXCEPTIONS
STUDENT COURSE OFFICE
STUDENT COURSE OFFICE BY GROUP
STUDENT COURSE OFFICE BY YEAR
STUDENT COURSE STATISTICS
STUDENT COURSE UPDATE
STUDENT ENROLMENT
STUDENT HOUSE LISTS OPEN
STUDENT HOUSE LISTS U13
STUDENT HOUSE LISTS U14
STUDENT HOUSE LISTS U15
STUDENT LEAVERS

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STUDENT LEAVERS ADDRESS
STUDENT LEAVERS BY DATE
STUDENT LEAVERS DEPARTMENT RETURN
STUDENT PHONE
STUDENT POSTAL
STUDENT STATISTICS
STUDENT TIMETABLES BY GROUP
STUDENT TIMETABLES BY YEAR
STUDENT UPDATE NO 1
STUDENT UPDATE NO 2
STUDENT UPDATE NO 3
STUDENT UPDATE NO 4
STUDENT UPDATE NO 5
STUDENT UPDATE NO 6
STUDENT UPDATES
TEACHER BY CODE
TEACHER BY GROUP
TEACHER BY NAME
TEACHER BY NAME ADDRESS
TEACHER BY NAME COMMENTS 1 TO 5
TEACHER BY NAME COMMENTS 6 TO 10
TEACHER BY NAME PERSONAL
TEACHER CLASSES TIMETABLED
TEACHER STATISTICS
TEACHER TIMETABLES
TEACHER TO GROUP EXCEPTIONS
TEACHER TO ROOM EXCEPTIONS
TEACHER UPDATE NO 1
TEACHER UPDATE NO 2
TEACHER UPDATE NO 3
TEACHER UPDATE NO 4
TEACHER UPDATE NO 5
TEACHER UPDATES
TIMETABLE BY DAY BY LESSON
TIMETABLE BY ROOM
TIMETABLE BY SUBJECT BY YEAR BY LINE
TIMETABLE BY TEACHER
TIMETABLE BY YEAR BY LINE BY SUBJECT
TIMETABLE BY YEAR BY SUBJECT BY LINE
TIMETABLE CLASHES
TIMETABLE CLASS TEACHERS
TIMETABLE EXCEPTIONS
TIMETABLE UPDATE
YEAR TIMETABLES
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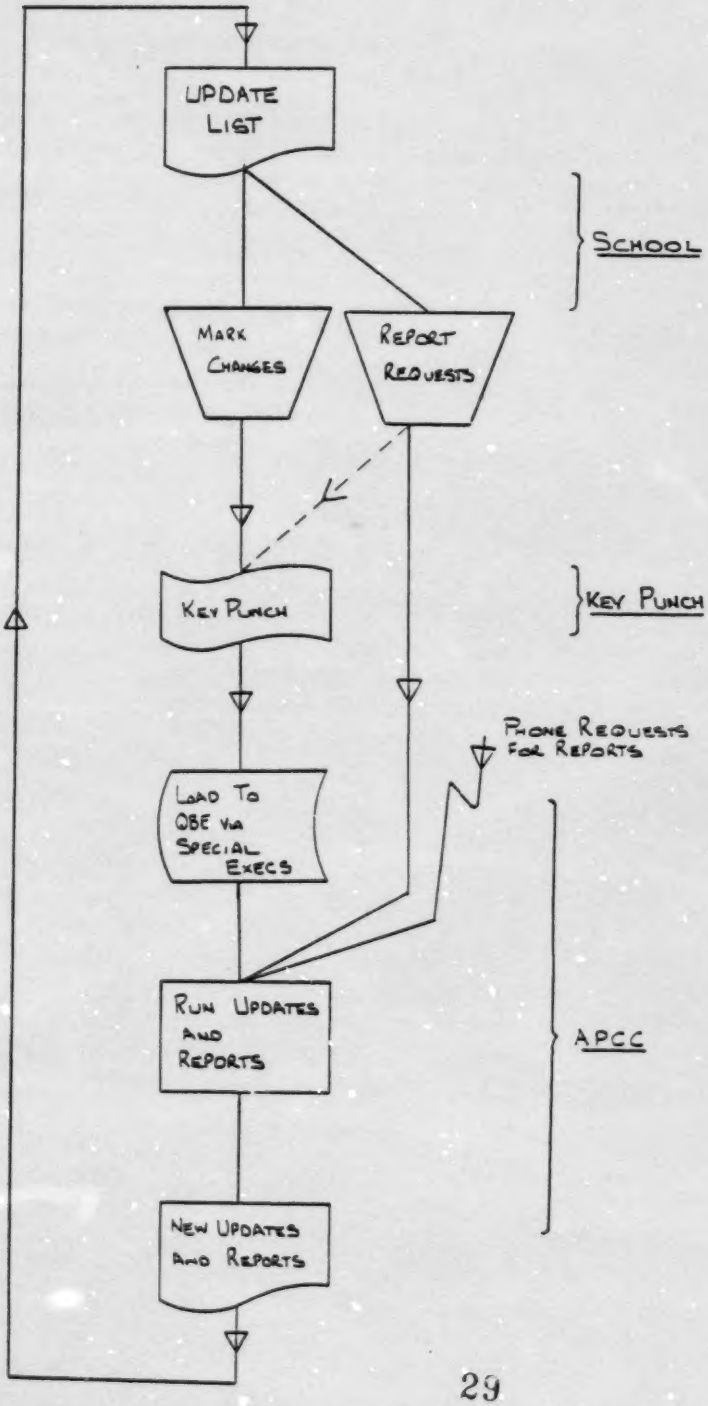
APPENDIX C: THE ORGANISATIONAL PROCESS



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APPENDIX D: SOME REPORT FORMATS

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                    + STRIP 1 OF 1  D1385QBE ++   25/06/82   ++   14.26.45  ++ QBE8LST     PAGE   18

                                        STUDENT  COURSE  OFFICE
REGISTER SEX          NAME              GROUP TEACHER SUBJECT LINE CLASS        DESCRIPTION
  0778    M  WILLIAMS MICHAEL R          0801          08 DDA   0F   01   DANCE - DRAMA 080F
                                                       08 ENG   01   01   ENGLISH 801
                                                       08 FRE   0F   01   FRENCH 80F
                                                       08 GER   0F   01   GERMAN 80F
                                                       08 HEA   0F   01   HEALTH 80F
                                                       08 HEC   05   01   HOME ECONOMICS 805
                                                       08 HUM   01   01   HUMANITIES 801
                                                       08 ITA   0F   01   ITALIAN 80F
                                                       08 MAT   01   01   MATHEMATICS GENERAL 801
                                                       08 MUS   0F   01   MUSIC  80F
                                                       08 PED   05   01   PHYSICAL EDUCATION 805
                                                       08 SCN   01   01   SCIENCE 801
                                                       08 TST   05   01   TECHNICAL STUDIES 805
  0414    F  WILSON ANNITA E             1001          10 CMP   05   01   COMPUTER STUDIES A 1005
                                                       10 DRA   01   01   DRAMA 1001
                                                       10 ENG   01   01   ENGLISH 1001
                                                       10 ENS   01   01   ENVIRONMENTAL STUDIES 1001
                                                       10 FAN   45   01   FOOD AND NUTRITION 1045
                                                       10 GOG   01   01   GEOGRAPHY 1001
                                                       10 HEA   05   01   HEALTH 1005
                                                       10 MAB   01   01   MATHEMATICS ALGEBRA 1001
                                                       10 MAT   01   01   MATHEMATICS GENERAL 1001
                                                       10 PED   05   01   PHYSICAL EDUCATION 1005
  0347    F  WORTHEON JULIE B            1002          10 CMP   05   01   COMPUTER STUDIES A 1005
                                                       10 CST   41   01   CLERICAL STUDIES 1041
                                                       10 ENG   01   01   ENGLISH 1001
                                                       10 FAN   45   01   FOOD AND NUTRITION 1045
                                                       10 GOG   51   01   GEOGRAPHY 1051
                                                       10 HEA   05   01   HEALTH 1005
                                                       10 MAB   01   01   MATHEMATICS ALGEBRA 1001
                                                       10 MAT   01   01   MATHEMATICS GENERAL 1001
                                                       10 PED   05   01   PHYSICAL EDUCATION 1005
                                                       10 PSC   01   01   PHYSICAL SCIENCE 1001
  0436    F  WRIGHT SUSAN T              1001          10 ART   01   01   ART 1001
                                                       10 ENG   01   01   ENGLISH 1001
                                                       10 FRE   01   01   FRENCH 1001
                                                       10 GOG   01   01   GEOGRAPHY 1001
                                                       10 HEA   05   01   HEALTH 1005
                                                       10 HIS   51   01   HISTORY 1051
                                                       10 MAT   01   01   MATHEMATICS GENERAL 1001
                                                       10 PED   05   01   PHYSICAL EDUCATION 1005
                                                       10 PSC   01   01   PHYSICAL SCIENCE 1001
  0263    F  WRIGHTSON KATHRYN           1102          11 ART   01   01   ART 1101
                                                       11 ECO   01   01   ECONOMICS 1101
                                                       11 ENG   01   01   ENGLISH 1101
                                                       11 ITA   01   01   ITALIAN 1101
                                                       11 MAA   51   01   MATHEMATICS A 1151
                                                       11 MAB   51   01   MATHEMATICS B 1151
                                                       11 PED   05   01   PHYSICAL EDUCATION 1105
                                                       11 PST   45   01   PERSONAL TYPING 1145
                                                       11 SST   00   01   SUPERVISED STUDY
  0680    M  YOUNG PETER ALLAN S         0903          09 ART   05   01   ART 905
                                                       09 DRA   01   01   DRAMA 0901
                                                       09 ENG   01   01   ENGLISH 901
                                                       09 FRE   01   01   FRENCH 901
                                                       09 HEC   05   01   HOME ECONOMICS 905
                                                       09 HIS   51   01   HISTORY 951
                                                       09 MAT   51   01   MATHEMATICS ADVANCED 951
                                                       09 PED   05   01   PHYSICAL EDUCATION 905
                                                       09 SCN   51   01   SCIENCE 951
                                                       09 TST   05   01   TECHNICAL STUDIES 905
  7090    F  ZUBRANSKI MARIE L           1201          12 ART   61   01   ART 1261
                                                       12 ENG   61   01   ENGLISH 1261
                                                       12 MAC   61   01   MATHEMATICS SSC 1261
                                                       12 MOD   61   01   MODERN STUDIES 1261
                                                       12 SCN   61   01   SCIENCE 1261
                                                       12 SST   00   01   SUPERVISED STUDY
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TIMETABLE CLASHES

COMMENT :- TEACHER CLASHES

DAY	LESSON	CLASH 1				CLASH 2				TEACHER	ROOM
1.MO	1	08	HEA	0F	04	11	SEC	05	01	KN	
		09	ORA	01	01	09	ORA	01	03	ST	
	2	09	PEC	05	05	10	PED	05	10	VI	
		10	CET	11	01	10	TYP	41	01	MK	
		10	MAA	31	01	10	MAT	01	01	MM	
		11	SEC	05	31	12	CHE	51	01	KN	
	3	08	GER	0F	07	09	FRE	01	01	FW	
		06	MUS	0F	01	03	MUS	0F	06	SE	
		08	TST	05	05	11	MWK	41	01	PT	
		11	SST	00	04	12	SST	00	02	GC	
	4	08	MEC	05	11	10	FAN	45	01	GL	
		03	TST	05	02	11	DED	45	02	PT	
	5	06	TST	05	12	09	TST	05	09	DS	
		09	ART	05	02	11	ART	61	01	SW	
		04	ART	05	03	09	ART	05	07	MP	
		04	MEC	05	03	39	MEC	05	09	KM	
	6	08	MAT	01	02	09	MAT	01	04	MC	
		09	ART	05	04	10	ART	01	02	DW	
		09	ART	05	03	09	ART	05	09	MP	
		09	GOG	01	02	12	GLG	51	01	JA	
		09	MEC	05	09	10	MEC	01	02	KM	
						11	CAT	45	01	AM	
		09	TST	05	03	11	ALA	45	01	DS	
		10	MEC	01	02	11	CAT	45	01	KM	
		11	SST	00	03	12	SST	00	03	GC	
	7	08	CCA	0F	05	09	PED	05	05	VI	
	8	08	TST	05	09	03	TST	05	07	DS	
		04	TST	04	06	11	PLA	41	01	DS	
	9	08	FRE	0F	04	10	SHE	51	01	FW	
		03	SCN	01	06	12	BIO	51	03	CT	
		08	TST	05	06	09	TST	05	07	PT	
		10	PEC	05	03	11	PED	05	02	DS	
		10	MWK	41	01	11	TST	21	01	DS	
3.WE	1	08	SCN	01	03	09	BIO	05	01	DS	
		10	PSC	01	01	11	CHE	51	02	GZ	
		11	SST	00	01	11	SST	00	15	GO	
	2	08	ART	05	08	10	ART	01	05	MC	
						11	PAD	45	01	HE	
		08	ART	05	16	10	ART	01	06	MM	
		08	MAT	01	01	09	MAT	01	01	MM	
						10	MAT	01	03	MR	
		09	MAT	01	01	10	MAT	01	03	MR	
		09	PEC	05	01	10	PED	05	06	DS	
		10	ART	01	05	11	PAD	45	01	HE	
	3	08	ART	05	05	11	CER	45	01	RO	
		08	MAT	01	02	09	MAT	01	02	MC	
		09	TST	05	01	10	PLA	41	01	DS	
		10	MEA	05	08	11	PED	05	05	DS	
		10	MAT	01	01	11	CHE	51	02	GZ	
	4	08	ART	05	03	09	ART	05	11	RO	
		08	MEC	05	12	11	FAN	45	01	KM	
		09	MAT	01	02	09	SCN	01	01	MC	
		09	TST	05	05	10	MWK	41	01	PT	
						11	DED	45	02	PT	
		10	ENG	01	02	11	ENG	01	02	LE	
		10	MWK	41	01	11	DED	45	02	PT	
		10	PED	05	02	10	PED	05	05	KT	
	5	08	ART	05	13	11	ART	61	01	SW	
		08	ENG	01	01	12	ENG	61	01	MY	
		08	ENG	01	09	09	ENG	01	02	EA	
		08	MUS	0F	03	08	MUS	0F	06	SE	

TEACHER STATISTICS

SEX	POSITION	AVAILABLE	CODE CNT
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---	---	---	---

STUDENT BY NAME

REGISTER	SEX	NAME	YEAR	GROUP	TEACHER	HOUSE	D OF B
0979	F	ADAMS LEANNE JOY	10	1003		COCK	30/03/68
7121	F	ADELLO ANNA	12	1201		COCK	02/02/66
0921	F	ALWINS KAREN	08	0804		COOK	21/09/69
0892	M	AMBERTO NICK	08	0801		STURT	30/03/69
0695	M	ANDERS DARREN B	10	1004		STURT	31/12/67
0415	F	ANDERSON LESLIE E	10	1004		FLINDERS	01/10/67
0005	M	ANDREW GALTANO	11	1102		FLINDERS	02/02/66
7744	M	BAKER WILLIAM T	12	1201		EYRE	11/09/65
7680	M	BALDWIN STEPHEN	12	1202		FLINDERS	05/11/65
0246	M	BAPTISTO JOHN	11	1101		FLINDERS	29/09/66
0526	M	BARSON KEVIN	09	0901		COOK	17/12/68
0528	F	BENDY ANNETTE KAY	09	0903		COCK	15/06/68
1001	F	BLAKE DEBORAH ANN	09	0902		FLINDERS	
0018	F	BLOCK SHARON J	10	1003		STURT	15/09/66
0416	M	BONDINDIC NICOLA	10	1001		STURT	11/07/66
0858	M	BRANT STEVEN	08	0803		STURT	20/08/68
0036	M	CAMBA CARMINE	11	1101		STURT	31/05/66
0725	M	CARMAN CARLO	09	0901		FLINDERS	04/08/68
0428	F	CARSON PATRICIA A	10	1002		STURT	30/09/67
0927	M	CASTLE RICHARD	08	0804		FLINDERS	04/12/69
0820	M	CAVLINO SERGIO	08	0804		STURT	01/07/69
0239	F	CHAPLIN EMILY	12	1202		COOK	27/10/54
0479	M	CHARM ANTHONY	10	1004		FLINDERS	31/01/68
7772	M	CHRISTIANO ANTONIO	12	1201		EYRE	03/03/65
0471	M	CHRISTOSON MARIA	10	1002		FLINDERS	22/12/66
0038	M	CHURCH ANTONIO L	11	1102		FLINDERS	22/07/65
0037	F	CHURCH FREDERICK T	11	1102		EYRE	03/08/66
0545	F	CLARK BARABARA ANNE	09	0901		STURT	10/06/68
0496	M	COVULLA ALBINO	10	1001		EYRE	20/12/66
0049	M	CROMWELL RUSSELL J	11	1101		STURT	30/03/66
0553	M	DALSONY DAVID CLAUDIC	09	0903		FLINDERS	09/01/69
0554	F	DALSONY LINDA MARIE	09	0903		FLINDERS	29/04/68
0429	F	DANCHOERA ELENA	10	1001		STURT	30/11/67
0974	F	DAVIS RUBIROSA	09	0902		COOK	27/11/67
0901	M	DEARILE MICHAEL	08	0803		EYRE	03/10/69
0055	M	DEARLIE MARK W	11	1102		EYRE	10/06/66
7686	M	DEBEAVINS MARCO	12	1201		FLINDERS	15/09/65
7716	M	DONPRINCE JUSTIN	12	1202		COOK	11/01/66
0395	M	DOUGLAS PETER M	10	1004		COCK	11/06/68
0493	F	DUNNETT ANNE	10	1004		EYRE	29/12/67
0507	F	ESSEX IAN W	12	1202		EYRE	15/06/65
0067	M	FERRANT PAUL	11	1102		STURT	20/06/67
0353	M	FONELIS CARMINE	10	1002		FLINDERS	24/06/66
0370	M	GENGTOVA ANTONIO	09	0902		FLINDERS	27/04/68
0078	F	GIBSON JILLIAN	11	1101		EYRE	14/02/67

STUDENT POSTAL

REGISTER	SEX	NAME	ADDRESS	MOTHER	FATHER
0979	F	ADAMS LEANNE JOY	50 CASH ST ROSTREVOR 5073	R	JL
7121	F	ADELLO ANNA	89 LOMMAN AVE NEWTON 5074	R	R
0921	F	ALWINS KAREN	9 AURORA COURT ATHELSTONE 5076	LW	
0892	M	AMBERTO NICK	47 CENTOFANTI AVE NEWTON 5074	I	
0695	M	ANDERS DARREN B	9 SYREN COURT ATHELSTONE 5076	M	M
0415	F	ANDERSON LESLIE E	97 LOMMAN AVE NEWTON 5074	IL	EJ
0005	M	ANDREW GALTANO	92 LOMMAN AVE NEWTON 5074	R	R
7744	M	BAKER WILLIAM T	9 SHALFORD TCE CAMPBELLTOWN 5074	D	
7680	M	BALDWIN STEPHEN	13 RESERVE RD CAMPBELLTOWN 5074	FR	AM
0246	M	BAPTISTO JOHN	768 MONTACUTE RD ROSTREVOR 5073	L	R
0526	M	BARSON KEVIN	98 ELLERSLIE DRIVE ROSTREVOR 5073	FB	BC
0528	F	BENDY ANNETTE KAY	34 CORTLYNE ROAD ROSTREVOR 5073	NF	
1001	F	BLAKE DEBORAH ANN			
0018	F	BLOCK SHARON J	87 ALBION TCE CAMPBELLTOWN 5074	RA	J
0416	M	BONDINDIO NICOLA	41 GRAVES STREET NEWTON 5074	G	C
0858	M	BRANT STEVEN	56 CRESDEE RD CAMPBELLTOWN 5074	H	
0036	M	CAMBA CARMINE	58 EMERY RD CAMPBELLTOWN 5075	V	VM
0725	M	CARMAN CARLO	20 PAPAGNI AVE NEWTON 5074	DC	MC
0428	F	CARSON PATRICIA A	34 ALEXANDER AVE CAMPBELLTOWN 5074	C	V
0927	M	CASTLE RICHARD	34 EMANUEL ST ATHELSTONE 5076	JW	
0820	M	CAVLINO SERGIO	6 DEVON AVE NEWTON 5074	E	
0239	F	CHAPLIN EMILY	19 CROZIER AVE NEWTON 5074	N	G
0479	M	CHARM ANTHONY	1 LYNLY CRESCENT ROSTREVOR 5073	RN	KF
7772	M	CHRISTIANO ANTONIO	98 GALAXY WAY ATHELSTONE 5076	L	C
0471	M	CHRISTOSON MARIA	79 VINCENT AVE ATHELSTONE 5076	G	F
0038	M	CHURCH ANTONIO L	73 GRAVES ST NEWTON 5074	G	L
0037	F	CHURCH FREDERICK T	71 DEVON AVE NEWTON 5074	MJ	FD
0545	F	CLARK BARABARA ANNE	75 BRAEMORE TCE CAMPBELLTOWN 5074	LL	JL
0496	M	COVULLA ALBINO	90 GRAVES STREET NEWTON 5074	M	A
0049	M	CROMWELL RUSSELL J	9 SMITH ST NEWTON 5074	DC	SM
0553	M	DALSONY DAVID CLAUDIC	87 CLAIRVILLE RD CAMPBELLTOWN 5074	AB	G
0554	F	DALSONY LINDA MARIE	1 PAPAGNI AVE NEWTON 5074	R	
0429	F	DANCHOERA ELENA	49 VINCENT AVE ATHELSTONE 5076	AO	MO
0974	F	DAVIS RUBIROSA	64 WICKS ST CAMPBELLTOWN 5074	M	P
0901	M	DEARILE MICHAEL	1 REDWOOD ST ROSTREVOR 5073	DW	CC
0055	M	DEARLIE MARK W	1 REDWOOD ST ROSTREVOR 5073	DW	CC
7686	M	DEBEAVINS MARCO	87 THOMPSON AVE ROSTREVOR 5073	A	
7716	M	DONPRINCE JUSTIN	40 EAST ST HECTORVILLE 5073	H	

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STUDENT COURSE COMPLICT MATRIX

COURSE 1	COURSE 2	STUDENT
12 ART 00	12 SST 00	4
12 ART 51	12 ART 51	2
	12 BIO 51	3
	12 ENG 51	1
	12 FRE 51	1
	12 ITA 51	1
	12 MAS 51	2
	12 PHY 51	1
12 ART 61	12 ART 61	3
	12 ENG 61	2
	12 MAC 61	2
	12 MOD 61	2
	12 SCN 61	2
12 AUS 00	12 SST 00	4
12 AUS 51	12 AUS 51	4
	12 BIO 51	4
	12 ECO 51	2
	12 ENG 51	4
	12 GOG 51	1
	12 ITA 51	3
	12 MEH 51	2
12 BIO 00	12 SST 00	14
12 BIO 51	12 ART 51	2
	12 AUS 51	4
	12 BIO 51	14
	12 CHE 51	4
	12 CLA 51	1
	12 ECO 51	7
	12 ENG 51	9
	12 FRE 51	2
	12 GOG 51	6

TEACHER TO GROUP EXCEPTIONS

COMMENT :- ALLOCATED TEACHER GROUP NOT USED

TEACHER	GROUP
MS CHARLES	0805
MRS CANELLA	0805
MR STALSALT	0806
MRS GRULETTE	0807
MISS SOUBETH	0808
MR OSBOONE	0809
MISS SPOLSON	0810
MR STEVEN	0811
MRS FOWLER	0812
MR HALLAN	0904
MRS BERRISON	0905
MRS ZELLANOS	0905
MR MCRSFELL	0906
MR PALLIANNA	0907
MS KRAMSHAW	0908
MISS CALLAHAN	0909
MR BAWLINSON	0911
MR CANETTA	0912
MRS MCCORAN	1005
MRS MORELLY	1006
MRS GILLES	1007
MR QUINCY	1008
MISS DAMSELL	1009
MR MULLER	1010
MISS HARRISSON	1104
MR PERELLA	1105
MR LESLIE	1106
MR KNOWLEN	1107
MR JACKLYN	1108
MR WENDELSON	1110
MR REVELLS	1111
MR KOWANSKI	1203
MR BOSTON	1204
MISS STANDARY	1205
MR RUSSELL	
MR MORIALTY	
MR MANSON	
MRS COLSON	
MRS STEWART	
MISS VINARM	
MRS WEBSTER	
MR WHEATFIELD	
MISS BALLS	
MRS BRINSTON	
MR DOOFIREL	
MRS GRAHONEM	
MRS ECKETT	
MR GREGGSON	
MRS HOJES	
MR HOYLE	
MR KASSANDRA	
MISS LANDNER	

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STUDENT COURSE UPDATE

USE TRA CODES "C" FOR A CHANGE AND "D" FOR A DELETION
ADDITIONS ARE ENTERED AT THE END OF THE REPORT

YEAR :-

	TRA	REGISTER	SEX	YEAR	SUBJECT	LINE	CLASS	COMENT
1	A							
2	A							
3	A							
4	A							
5	A							
6	A							
7	A							
8	A							
9	A							
10	A							

STUDENT COURSE BY CLASS

SUBJECT :- DANCE - DRAMA 080F
YEAR SUBJECT LINE :- 08 DDA OF CLASS :- 01

REGISTER	SEX	NAME	GROUP
0921	F	ALWINS KAREN	0804
0892	M	AMBERTO NICK	0801
0858	F	GRANT STEVEN	0803
0927	M	CASTLE RICHARD	0804
0820	M	CAVLING SERGIO	0804
0901	M	DEARLE MICHAEL	0803
0780	F	HALLING ANNE	0802
0990	F	JONAS KERRIE LYN	0801
0781	M	JONES PETER L	0803
0872	F	KACLIAMARICK IRENE	0803
0907	M	LIDSELL STEPHEN	0803
0785	F	MANCIORO WILLIAM A	0803
0829	M	MATTHEWS PETER D	0802
0880	M	NOGY VINCENZO	0802
0987	F	PHILLIPS SUSANE JANE	0803
0831	F	RANSENG PATRICIA	0802
0796	F	ROSTI GERALDINA	0802
0884	M	RUSSELL DAVID	0802
0795	M	SMITH LOUIS N	0803
0778	M	WILLIAMS MICHAEL R	0801

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TRIP 1 OF 1 01385CBE ++ 30/06/82 ++ 8.45.57 ++ QBESLST PAGE 1

AGE GRADE CENSUS LIST

BAR	AGE	SEX	STUDENT CNT
08	12 <= AGE < 13	F	1
		M	5
	13 <= AGE < 14	F	2
		M	7
	14 <= AGE < 15	F	1
	21 <= AGE	M	1
09	13 <= AGE < 14	F	3
		M	5
	14 <= AGE < 15	F	9
		M	5
	15 <= AGE < 16	M	1
10	13 <= AGE < 14	F	1
	14 <= AGE < 15	F	15
		M	5
	15 <= AGE < 16	F	7
		M	11
	16 <= AGE < 17	M	1
11	15 <= AGE < 16	F	4
		M	6
	16 <= AGE < 17	F	4
		M	12
	17 <= AGE < 19	M	1
12	16 <= AGE < 17	F	3
		M	7
	17 <= AGE < 19	F	5
		M	4

STRIP 1 OF 1 01385CBE ++ 07/06/82 ++ 12.00.26 ++ QBESLST PAGE 1

STUDENT STATISTICS

YEAR	GROUP	HOUSE	SEX	REGISTER CNT
				133
			F	61
			M	72
08				21
09				25
10				40
11				27
12				20
08			F	8
08			M	13
09			F	13
09			M	12
10			F	23
10			M	17
11			F	9
11			M	19
12			F	9
12			M	11
	LEFT			3
	08C1			3
	08C2			6
	08C3			9
	08C4			3
	09C1			8
	09C2			10
	09C3			7
	10C1			8
	10C2			11
	10C3			10
	10C4			11
	11C1			13
	11C2			13
	11C3			1
	12C1			9
	12C2			11
				1
	LEFT		F	2
			M	1

STUDENT UPDATE NO 1

USE TRA CODES "C" FOR A CHANGE AND "D" FOR A DELETION
ADDITIONS ARE ENTERED AT THE END OF THE REPORT

TRA	REGISTER	SEX	NAME	YEAR	GROUP	HOUSE	TEACHER	D OF B
	0005	M	ANDREW GALTANO	11	1102	FLINDERS		02/02/66
	0018	F	BLOCK SHARON J	10	1003	STURT		15/09/66
	0036	M	CAMBA CARMINE	11	1101	STURT		31/05/66
	0037	F	CHURCH FREDERICK T	11	1102	EYRE		03/09/66
	0038	M	CHURCH ANTONIO L	11	1102	FLINDERS		22/07/65
	0049	M	CROMWELL RUSSELL J	11	1101	STURT		30/08/66
	0055	M	DEARLIE MARK W	11	1102	EYRE		10/06/66
	0067	M	FERRANT PAUL	11	1102	STURT		20/06/67
	0078	F	GIBSON JILLIAN	11	1101	EYRE		14/02/67
	0081	M	GOODSON PETER J	11	1101	COOK		01/07/66
	0083	M	GRAYLING ANDREW	11	1102	EYRE		20/12/66
	0095	M	HOLMES PATRICIA	11	1101	COOK		19/01/66
	0098	M	IALETTIA BRUNO	11	1102	STURT		12/05/66
	0105	F	KESTEL ANITA	11	1101	EYRE		13/04/66
	0115	M	MAGENTA SANDRO	11	1102	EYRE		04/04/66

STUDENT UPDATE NO 2

USE ONLY TRA CODE "C" FOR A CHANGE
ADDITIONS ARE ENTERED AT THE END OF THE REPORT

TRA	REGISTER	SEX	ADDRESS
	0005	M	92 LOMMAN AVE NEWTON 5074
	0018	F	87 ALBION TCE CAMPBELLTOWN 5074
	0036	M	58 EMERY RD CAMPBELLTOWN 5075
	0037	F	71 DEVON AVE NEWTON 5074
	0038	M	73 GRAVES ST NEWTON 5074
	0049	M	9 SMITH ST NEWTON 5074
	0055	M	1 REDWOOD ST ROSTREVOR 5073
	0067	M	9 ROCLIN AVE NEWTON 5074
	0078	F	87 SPARTAN CRESCENT ATHELSTONE 5076
	0081	M	89 TYRONE AVE CAMPBELLTOWN 5074
	0083	M	769 STRADBROKE RC ROSTREVOR 5073

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STUDENT BY GROUP

GROUP :- 0803 TEACHER :-

REGISTER	SEX		NAME					
0858	M	___	BRANT STEVEN					
0901	M	___	DEARTLE MICHAEL					
0839	M	___	IRELSON NICHOLAS					
0781	M	___	JONES PETER C					
0872	___	___	KACLIAMARICK IRENE					
0907	M	___	LIDSELL STEPHEN					
0785	F	___	MARCIORU WILLIAM A					
0987	F	___	PHILLIPS SUSANE JANE					
0795	M	___	SMITH LOUIS N					

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STUDENT TIMETABLES BY GROUP

GROUP :- 0804 REGISTER :- 0921 SEX :- F NAME :- ALWINS KAREN YEAR :- 08

DAY	LESSON	DESCRIPTION	ROOM	TEACHER	YEAR	SUBJECT	LINE	CLASS
1.MO	2	DANCE - DRAMA 08OF	56	MISS CALLAHAN	08	DDA	OF	01
	3	MUSIC 80F	54	MR STALSALT	08	MUS	OF	01
	5	ART 80S	39	MISS SPOLSON	08	ART	05	01
	3	MUSIC 80F	54	MR STALSALT	08	MUS	OF	01
	6	TECHNICAL STUDIES 90S	52A	MR MULLER	08	TST	05	01
	6	ART 80S	39	MISS SPOLSON	08	ART	05	01
	9	HUMANITIES 801	102	MR HALLAN	08	HUM	01	01
2.TU	3	HEALTH 80F	29	MRS HOJES	08	HEA	OF	01
	3	TECHNICAL STUDIES 90S	52A	MR MULLER	08	TST	05	01
	4	SCIENCE 301	11	MR MURPHY	08	SCN	01	01
	3	MUSIC 80F	54	MR STALSALT	08	MUS	OF	01
	4	HUMANITIES 801	102	MR HALLAN	08	HUM	01	01
	5	HOME ECONOMICS 805	19	MISS MORRISON	08	HEC	05	01
	6	HEALTH 80F	29	MRS HOJES	08	HEA	OF	01
	6	TECHNICAL STUDIES 90S	52A	MR MULLER	08	TST	05	01
	6	SCIENCE 301	11	MR MURPHY	08	SCN	01	01
	9	HUMANITIES 801	102	MR HALLAN	08	HUM	01	01
3.WE	3	ENGLISH 301	114	MR MYERSON	08	ENG	01	01
	4	ENGLISH 301	119	MR MYERSON	08	ENG	01	01
	6	HEALTH 80F	29	MRS HOJES	08	HEA	OF	01
	7	ITALIAN 3OF	43	MR PERELLA	08	ITA	OF	01
4.TH	2	DANCE - DRAMA 08OF	56	MISS CALLAHAN	08	DDA	OF	01
	3	GERMAN 80F	45	MISS SCUBETH	08	GER	OF	01
	3	GERMAN 80F	45	MISS SCUBETH	08	GER	OF	01
	4	FRENCH 80F	40	MRS KNESTELL	08	FRE	OF	01
	4	HOME ECONOMICS 805	19	MISS MORRISON	08	HEC	05	01
	5	HOME ECONOMICS 805	19	MISS MORRISON	08	HEC	05	01
	5	ENGLISH 301	119	MR MYERSON	08	ENG	01	01
	6	SCIENCE 301	11	MR MURPHY	08	SCN	01	01
	6	ART 80S	39	MISS SPOLSON	08	ART	05	01
	8	MATHEMATICS ADVANCED 851	30	MRS CANELLA	08	MAT	51	01
	7	PHYSICAL EDUCATION 805	55	MISS VINARM	08	PED	05	01
	9	DANCE - DRAMA 08OF	56	MISS CALLAHAN	08	DDA	OF	01
	9	FRENCH 80F	40	MRS KNESTELL	08	FRE	OF	01
	4	PHYSICAL EDUCATION 805	55	MISS VINARM	08	PED	05	01
5.FR	3	GERMAN 80F	45	MISS SCUBETH	08	GER	OF	01
	7	MATHEMATICS ADVANCED 851	30	MRS CANELLA	08	MAT	51	01
	7	ITALIAN 3OF	43	MR PERELLA	08	ITA	OF	01
	9	MATHEMATICS ADVANCED 851	30	MRS CANELLA	08	MAT	51	01

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YEAR :- 12

YEAR TIMETABLES

DAY	LESSON	DESCRIPTION	ROOM	TEACHER	CLASS	COMMENT	YEAR SUBJECT LINE
1.MO	1	MATHEMATICS 1S 1251	15	MR HUNKERLICH	C1		12 MAS 51 01
	2	CHEMISTRY 1251	9	MR KNOWLEN	01		12 CHE 51 01
	3	ECONOMICS 1251	103	MRS REWALK	C1		12 ECO 51 01
		MODERN EUROPEAN HISTORY 1251	108	MR RUSSELL	C1		12 MEH 51 01
		SUPERVISED STUDY	109A	MR GREGSON	C2		12 SST 00 02
		GEOGRAPHY 1251	110	MR JACKLYN	01		12 GGG 51 01
	5	MODERN EUROPEAN HISTORY 1251	108	MR RUSSELL	C1		12 MEH 51 01
	6	GEOGRAPHY 1251	110	MR JACKLYN	01		12 GGG 51 01
		SUPERVISED STUDY	109A	MR GREGSON	03		12 SST 00 03
	7	CHEMISTRY 1251	9	MR KNOWLEN	C1		12 CHE 51 01
		SUPERVISED STUDY	109A	MR GREGSON	03		12 SST 00 03
	8	ITALIAN 1251	94	MRS KRESTELL	01		12 ITA 51 01
	9	ITALIAN 1251	94	MRS KRESTELL	C1		12 ITA 51 01
		PHYSICS 1251	13	MR CHAPFIELD	C1		12 PHY 51 01
2.TU	1	ART 1251	48	MISS STANDARY	C1		12 ART 51 01
		ART 1261	28	MR BAWLINSON	C1		12 ART 61 01
		ENGLISH 1251	114	MR LESLIE	02		12 ENG 51 02
		MATHEMATICS 1S 1251	15	MR HUNKERLICH	C1		12 MAS 51 01
		MUSICAL THEORY AND PRACTICE	94	MR STALSALT	01		12 MTP 51 01
		SUPERVISED STUDY	109A	MR GREGSON	06		12 SST 00 06
	2	ART 1251	48	MISS STANDARY	01		12 ART 51 01
		ENGLISH 1251	109	MR BOSTIN	01		12 ENG 51 01
		ENGLISH 1251	114	MR LESLIE	02		12 ENG 51 02
	3	ART 1261	28	MR BAWLINSON	C1		12 ART 61 01
		BIOLOGY 1251	12	MR LENTONS	C1		12 BIO 51 01
		MATHEMATICS 1 1251	14	MR WHEATFIELD	01		12 MAA 51 01
	4	BIOLOGY 1251	41	MR COLLINSON	03		12 BIO 51 03
		SUPERVISED STUDY	109A	MR GREGSON	01		12 SST 00 01
	5	MUSICAL THEORY AND PRACTICE	94	MR STALSALT	C1		12 MTP 51 01
	6	ECONOMICS 1251	102	MRS REWALK	02		12 ECO 51 02
	8	CLASSICAL STUDIES 1251	22	MR GODFIREL	01		12 CLA 51 01
		ECONOMICS 1251	102	MRS REWALK	02		12 ECO 51 02
		GEOGRAPHY 1261	112	MRS BUNTON	21		12 GOG 61 01
		MATHEMATICS 1 1251	14	MR WHEATFIELD	01		12 MAA 51 01
	9	BIOLOGY 1251	12	MR LENTONS	01		12 BIO 51 01

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TIMETABLE BY TEACHER

YEAR	SUBJECT	LINE	CLASS	DAY	LESSON	TEACHER	ROOM
10	ENG	31	01	1.MO	5	BE	27
10	ENG	31	01		9		27
08	ENG	11	01	2.TU	7		27
08	ENG	11	01		9		27
08	ENG	11	01	4.TH	7		27
10	ENG	31	01	5.FR	5		27
11	SCN	41	01	2.TU	5	JG	25A
11	SCN	41	01	5.FR	5		25A
11	SCN	41	01		9		25A
08	ENG	01	06	2.TU	2	PL	23
08	ENG	01	06		3		23
08	ENG	01	06	4.TH	3		23
11	ENG	01	02		4		23
11	ENG	01	02		5		23
11	ENG	01	02	5.FR	4		23
11	CME	51	02	2.TU	2	BN	523
11	GOG	51	01				112
10	CMP	75	01		5		17
12	GCG	61	01		8		112
11	GOG	51	01	3.WE	2		112
10	CMP	05	01		5		17
10	CMP	05	01		9		17
12	GOG	61	01	5.FR	6		112
12	MOD	61	01		7		112
12	GOG	61	01		8		112
12	MOD	61	01				112
11	ENG	01	01	1.MO	3	BS	109
12	ENG	51	01	2.TU	2		109
11	ENG	01	01		3		109
11	ENG	01	01		4		109
12	GOG	51	02	3.WE	7		109
11	MSS	45	01		9		109
12	GCG	51	02				109
12	GOG	51	02	4.TH	7		109
10	GOG	51	01		8		109
10	GOG	51	01		9		109
12	ENG	51	01	5.FR	2		109
09	ENG	01	05		3		109
12	ENG	51	01				109
09	ENG	01	05		6		109
09	ORA	01	01	1.MO	1	BT	32
09	ORA	01	03				111
09	ORA	01	03		4		111
08	ORA	01	07		5		111

STUDENT LEAVERS DEPARTMENT RETURN

REG NO	SEX1	H	NAME	SEX	GCC EMP AGE YR	LEAVE DATE
7103	F	.....	CALDERSONE SHAUNA JANE	F	32.M6.HOME	12/02/92
7089	F	.....	SCALES MARIA SUSANNE	F	39.M10.GONE FISHING	31/01/92
7979	M	.....	TAMLIT KYM	M	33.M.GONE INTERSTATE	31/01/92

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